MARATHON TRAINING

TRAINING SYSTEM AND PRACTICAL EXAMPLES

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Important points to follow :

1 – Athletes of International Level must be able to produce "QUALITY"

2 – In order to produce "Quality", we need to use big modulation between High Intensity and Recovery

3 – Never athletes can run very fast, if are not able to run, sometimes, very slow and easy

4 – Specific quality is the key for running at the best possible level. Running long and slow, combined with short and fast, doesn't produce the possibility to run long and fast

PERIODISATION

* Transition Period
* General Period
* Fundamental Period
* Specific Period

Transition Period

(Lasting 4 weeks after the marathon)

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- ***Easy run (lasting no longer than 1 hour)***
- ***Recovery of muscle strength and reactivity (modified circuits)***
- ***Exercises of Running Technique***

General Period

(Lasting 4 weeks)

General Period

(Lasting 4 weeks)

- ***Training General Resistance***
- ***Training Strength Endurance***
- ***Training ability to recruit fast fibers***

General Period

Training General Resistance

- *Long Run at even pace (80% MP)*

- *Long Run with variations of speed (Fartlek)*

- *Long continuous Run uphill*

- *Long continuous run in progression of speed*

Long Run at even Pace

2 session per week at 75% of MP

(duration : 1 hr 30' – 2 hours)

2 session per week at 80% of MP

(duration : 1 hr 20' – 1 hr 40')

1 session per week at 87% of MP

(duration : 1 hr – 1 hr 20')

5 session per week of Regeneration

(duration : 45' – 1 hr)

Long Run with Variations of Speed

1 Session per week

Duration : 1 hr – 1 hr 20'

Execution : 20' warm-up + Mixed variations

Example :

3 times 3' at MP alternated with 2' at 80% of MP +

5 times 2' at MP alternated with 2' at 80% of MP +

20 time 1' at 105% of MP alternated with 1' at 80% MP

Long Continuous Run Uphill

1 Session per week

Distance : 8 – 12 km

Gradient : 6% - 8%

Intensity : 90% of max effort

Goal :

To increase the strenght endurance and the Mental resistance

Long Continuous Run in Progression of Speed

1 Session per week

Distance : 12 – 16 km

Execution :

Start at 80% of MP, gradually increasing the Speed till 100% of MP.

During the last 2 weeks of the General Period, it's good solution to try to finish the last 2 km at maximal personal speed

General Period

Training Strength Endurance

1 Session every 2 weeks **(alternated with Circuits on the Hill)**

System : Modified Circuits

Number of Repetitions : 4 – 6 times

Recovery between every circuit : 6 minutes

Goal : To increase the ability to use high percentage of max strength in long endurance activity

MODIFIED CIRCUIT ON TRACK

400m Run at MP

30 seconds Skipping

400m Run at MP

50m bounding

400m Run at MP

30 seconds running heels-to-buttocks

400m Run at MP

30 seconds jumping on the place with blocked knees (feet reactivity)

400m Run at MP

30 seconds of Sagittal Splits

400m Run at 105% MP

10 squat-jumps (max intensity)

General Period

Training ability to recruit fast fibers

1 Session every 2 weeks (alternated with Circuits on track)

System : Circuits on hilly course

Number of Repetitions : 6 – 8 times

Recovery between every circuit : 4 - 6 minutes

Goal : To increase the ability to recruit high percentage of fast fibers when there is high level of lactate in the muscle fibers

Fundamental Period

(Lasting 6 weeks)

Fundamental Period

(Lasting 6 weeks)

- ***Training General Resistance***
- ***Training Aerobic Resistance***
- ***Training Basic Aerobic Endurance***
- ***Training Special Aerobic Endurance***
- ***Training Aerobic Power***
- ***Training Strength Endurance***

Fundamental Period

Training General Resistance

Long Run at even pace, run at 80% MP,

Lasting from 2 hr till 3 hr (Duration Training)

Goal : to improve the adaptation of the body structure (tendons, jointures, muscles) and of the mind, to stay "on the legs" for long time

This training doesn't have direct influence on the performance, but is fundamental as "training for the specific marathon training"

Fundamental Period

Training Aerobic Resistance

- Long Continuous Run at even pace, run at 85% - 87% MP, Lasting from 1 hr 30’ till 2 hr.

Goal : to improve the utilization of fatty acids (Lipidic Aerobic Power) and the biomechanic ability during increasing level of fatigue

This training can be considered the link between
“General” and “Specific” interpretation of Long Run
Having a basic effect on the metabolic system

Fundamental Period

Training Basic Aerobic Endurance

- Long Continuous Run at even pace, run at 87% - 93% MP, Lasting from 1 hr 10’ till 1 hr 40’

- Long Continuous Run alternating medium distances (3-6 km) at 93% of MP with short distances (1-2 km) at 80% of MP, for a total volume of 25-30 km

This training can be considered the link between “General” and “Specific” interpretation of “Specific Marathon Speed Endurance” with a basic effect on the metabolic system

Fundamental Period

Training Special Aerobic Endurance

- **Long Continuous Run at even pace, run at 93% - 100% MP, Lasting from 20 km to 30 km**

- ***Long Continuous Run alternating medium distances (2-6 km) at 98% of MP with short distances (1 km) at 80% of MP, for a total volume of 25-30 km***

This training has the same mean of the "Specific Marathon Speed Endurance" In the Specific Period, but is done at lower intensity

Fundamental Period

Training Aerobic Power

- **Long Continuous Run at even pace,**
  run at 100% - 110% of MP,
  Lasting from 8 km to 20 km

- ***Long Test on Track (1000m – 4000m)***
  run at 105 – 110% of MP

- ***Long Run with variations of speed (Fartlek)***

Fundamental Period

Training Aerobic Power

Examples of Continuous Run :

- **8-10 km at 110% of MP (or competition)**
- ***15 km at 105% of MP (or competition)***
- **HM competition**
- ***16 km in progression (4 km at MP + 4 km at 102% + 4 km at 104% + 4 km at 106%)***

Fundamental Period

Training Aerobic Power

Examples of Long Tests on Track :

- **2 x 3000m** *(103% of MP)* **+ 3 x 2000m** *(105% of MP)* **+ 4 x 1000m** *(108% of MP) (rec. 3')*

- ***10 x 1600m at 105% of MP*** *(rec. 2'30")*

- **1000 / 2000 / 3000 / 4000 / 3000 / 2000 / 1000m** *(rec. 3') at 108% - 105% - 103% - 100% MP*

Fundamental Period

Training Aerobic Power

Examples of Fartlek :

- **20 times 1’ fast alternated with 1’ at 80% MP + 20 times 30” fast alternated with 30” easy**
- ***15 times 3’ fast alternated with 1’ at 80% MP***
- **2 sets of [6’ + 5’ + 4’ + 3’ + 2’ + 1’ fast alternated with 1’ easy]**
  recovery 5’ easy run among every set

Fundamental Period

Training Strength Endurance

- **Long continuous run uphill (6-12 km)**
- ***Long Repetitions uphill (500m – 2000m)***
- **Modified Circuits uphill (3’ – 6’)**
- ***Long repetitions on track alternated with sets of short sprints uphill***

Fundamental Period

Training Strength Endurance

Examples of long continuous run uphill :

- **6 km (gradient 6% - 8%) at 90% of effort**
- ***10 km (gradient 4% - 6%) at 90% of effort***
- **12 km (gradient 3% - 5%) at 90% of effort**
- ***8 km progressive gradient (3% to 10%) at progressive effort***

Fundamental Period

Training Strength Endurance

Examples of long repetitions uphill :

- **10 x 500m at 95% of effort (recovery 4'/5') (gradient 8% - 10%)**
- ***5 x 1500m at 90% of effort (recovery 6'/8') (gradient 5% - 6%)***
- **3 x 2000m at 95% of effort (recovery 10') (gradient 3% - 5%)**

Fundamental Period

Training Strength Endurance

Modified Circuits uphill :

Number of Repetitions : 4 – 6

Recovery in between : 6’ – 8’

Example of Circuit (gradient 4% - 7%) :

200m running uphill at 95% of effort

50m skipping

300m running uphill at 90% of effort

50m bounding

400m running uphill at 85% of effort

50m heels-to-buttocks

450m running uphill at max effort

Fundamental Period

Training Strength Endurance

Examples of long repetitions on track alternated with sets of short sprints uphill :

3000m at MP *(recovery 2')* **+**

6 x 60m sprint uphill *(at max speed)*

Repeat 4 times *(recovery after every set : 3'/4')*

Specific Period

(Lasting 10 weeks)

Specific Period

(Lasting 10 weeks)

- ***Training Basic Aerobic Endurance***
- ***Training Specific Marathon Speed Endurance***
- ***Training Aerobic Power***
- ***Training Lactic Resistance***

Specific Period

Training Basic Aerobic Endurance

- **Long Continuous Run at even pace, run at 90% MP**
  Lasting from 1 hr 45' till 2 hr 20'

- ***How many times : 1 session every 2 weeks***

This training has the goal to maintain the body efficiency
And the Anaerobic Threshold at the same level

Specific Period

Training Specific Marathon Speed Endurance

- **Long Continuous Run at even pace, run at 96% - 100% MP, Lasting from 25 km to 40 km**

- ***Long Continuous Run alternating medium distances (2-6 km) at 98% - 103% of MP with short distances (1 km) at 80% of MP, for a total volume of 23-34 km***

This training has the goal to improve the ability to remove lactate from muscle fibers, increasing the permeability of the cell's membrane

Specific Period

Training Specific Marathon Speed Endurance

Examples of Specific Marathon Speed Endurance :

- 4 x 5 km at MP alternated with 1 km at 80% MP (23 km)

- 7 + 6 + 5 + 4 + 3 + 2 km increasing speed (from 98% MP to 103% MP) alternated with 1 km at 80% MP (32 km)

- 4 x 6 km (4 km at MP + 1 km at 95% MP + 1 km at 110% MP) alternated with 1 km at 70% MP (28 km)

Important points to follow :

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2 – In order to produce "Quality", we need to use big modulation between High Intensity and Recovery

3 – Never athletes can run very fast, if are not able to run, sometimes, very slow and easy

4 – Specific quality is the key for running at the best possible level. Running long and slow, combined with short and fast, doesn't produce the possibility to run long and fast

Thank you for your attention